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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,876	10/14/2005	Hiroshi Yoshimine	0230-0224PUS1	2285
2292	7590	11/22/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			ROSENAU, DEREK JOHN	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/532,876	YOSHIMINE ET AL.	
	Examiner	Art Unit	
	Derek J. Rosenau	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 9/12/06. These drawings are accepted.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimine et al. (WO 02/47246) in view of Yoshiuchi et al. (US 6748807).
4. With respect to claim 1, Yoshimine et al. discloses a method for preventing signal coupling between two or more chip-based mounted piezoelectric sensors (page 26, lines 7-20) used in an electrically conductive flow-through liquid sensor system (page 32, lines 1-7) wherein sensors are connected in series or parallel (page 26, lines 13-20) and each sensor has a flowcell body (Fig 6) provided with its own resonator (item S) connected to its own oscillator circuit (item 13) and its own power supply (page 25, lines 15-19) comprising: providing each sensor with its own, individual conducting shield which substantially surrounds said flowcell body (page 26, lines 7-20), and making an inner wall of a flow tube connecting each cavity out of a non-conducting material (page 28, lines 9-14).

Yoshimine et al. does not disclose expressly that said conducting shield is connected to one pole of the power supply.

Yoshiuchi teaches a piezoelectric resonator sensor including a conducting shield (items 8 and 17), the conducting shield being connected to one pole of the power supply (column 6, lines 4-7).

At the time of invention, it would have been obvious to combine the grounded shield of Yoshiuchi et al. with the piezoelectric sensor of Yoshimine et al. for the benefit of reducing the buildup of electrostatic charge in the conductive shield (column 6, lines 13-16).

5. With respect to claim 3, the combination of Yoshimine et al. and Yoshiuchi et al. discloses the method in accordance with claim 1. Yoshimine et al. discloses that the flowcell body is made of a non-conducting material (page 14, lines 20-22).

6. With respect to claim 5, Yoshimine et al. discloses a piezoelectric resonator sensor (Fig 6) comprising: a body comprising a resonator (item S) connected to an oscillator circuit (item 13); and a power supply (page 25, lines 15-19) wherein said body is substantially surrounded by a conducting shield (page 26, lines 7-20), wherein an inner wall of a cavity, inlet channel and an outlet channel are insulated by said shield (page 31, lines 6-12).

Yoshimine et al. does not disclose expressly that said conducting shield is connectable to one pole of the power supply.

Yoshiuchi teaches a piezoelectric resonator sensor including a conducting shield (items 8 and 17), the conducting shield being connectable to one pole of the power supply (column 6, lines 4-7).

At the time of invention, it would have been obvious to combine the grounded shield of Yoshiuchi et al. with the piezoelectric sensor of Yoshimine et al. for the benefit of reducing the buildup of electrostatic charge in the conductive shield (column 6, lines 13-16).

7. With respect to claim 8, the combination of Yoshimine et al. and Yoshiuchi et al. discloses the sensor in accordance with claim 5. Yoshimine et al. discloses that the body is made of a non-conducting material (page 14, lines 20-22).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 3, 5, and 8 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek J. Rosenau whose telephone number is 571-272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Derek J Rosenau  
Examiner  
Art Unit 2834

DJR  
11/14/2006

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800